

01-07-02

PTO/SB/16 (10-01)

Approved for use through 10/31/2002 OMB 0651-0032  
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995 no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**PROVISIONAL APPLICATION FOR PATENT COVER SHEET**

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53(c).

Express Mail Label No.

FE697936632 US

JCS69 U.S. PTO

60/344943

12/21/01

INVENTOR(S)					
Given Name (first and middle (if any))		Family Name or Surname		Residence (City and either State or Foreign Country)	
Daniel		Brown		Glendale, Arizona	
<input checked="" type="checkbox"/> Additional Inventors are being named on the _____ separately numbered sheets attached hereto					
TITLE OF THE INVENTION (500 characters max)					
PULSE ABSORBER FOR HIGH FREQUENCY TURBINE NOISE					
Direct all correspondence to: CORRESPONDENCE ADDRESS					
<input type="checkbox"/> Customer Number		Type Customer Number here		Place Customer Number Bar Code Label here	
OR					
<input checked="" type="checkbox"/> Firm or Individual Name		Ephraim Starr, General Counsel			
Address		Honeywell International Inc - Garrett Engine Boosting Systems			
Address		23326 Hawthorne Boulevard, Suite 200			
City	Torrance	State	CA	ZIP	90505
Country	USA	Telephone	310.791.9120	Fax	310.791.9125
ENCLOSED APPLICATION PARTS (check all that apply)					
<input checked="" type="checkbox"/> Specification Number of Pages		4		<input type="checkbox"/> CD(s), Number	
<input checked="" type="checkbox"/> Drawing(s) Number of Sheets		1		<input type="checkbox"/> Other (specify)	
<input type="checkbox"/> Application Data Sheet. See 37 CFR 1.76					
METHOD OF PAYMENT OF FILING FEES FOR THIS PROVISIONAL APPLICATION FOR PATENT					
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27.				FILING FEE AMOUNT (\$)	
<input type="checkbox"/> A check or money order is enclosed to cover the filing fees.					
<input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge filing fees or credit any overpayment to Deposit Account Number:		01-1125		\$160.00	
<input type="checkbox"/> Payment by credit card Form PTO-2038 is attached.					
The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government					
<input checked="" type="checkbox"/> No					
<input type="checkbox"/> Yes, the name of the U.S. Government agency and the Government contract number are: _____					

Respectfully submitted,

SIGNATURE

TYPED or PRINTED NAME Ephraim Starr

TELEPHONE 310.791.9120

Date

12/19/01

REGISTRATION NO.  
(if appropriate)  
Docket Number:

41,325

H0003111

**USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT**

This collection of information is required by 37 CFR 1.51. The information is used by the public to file (and by the PTO to process) a provisional application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 8 hours to complete, including gathering, preparing, and submitting the complete provisional application to the PTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Box Provisional Application, Assistant Commissioner for Patents, Washington, D.C. 20231.

# PROVISIONAL APPLICATION COVER SHEET

## Additional Page

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U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

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Docket Number	H0003111
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INVENTOR(S)/APPLICANT(S)		
Given Name (first and middle (if any))	Family or Surname	Residence (City and either State or Foreign Country)
Sunil Nandan	Sahay	Rolling Hills Estates, California
Steven Don	Arnold	Rancho Palos Verdes, California

Number 2 of 2

**WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

FOI 2021-046446

**Honeywell CONFIDENTIAL  
ATTORNEY-CLIENT PRIVILEGED**

**Invention Record  
(Docket) No.:  
H0003111**

**Origin  
Date:  
09/11/2001**

**SBE: 2900 - Torr., CA - GARRETT ENGINE BOOSTING  
SYS**

**Attorney(s): Starr, Ephraim D**

**File Location: NM - Albuquerque, NM**

**Title: Pulse Absorber for High Frequency Turbine Noise**

**Inventor: Brown, Daniel V  
Address: 4402 W. Watson Ln., Glendale,  
AZ 85306  
Phone: 602-231-1431 Fax: 602-231-  
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Citizenship: USA**

**SSN: \*\*\*\*\*  
County: Maricopa  
Supervisor: Dave F. Ross**

**Inventor: Sahay, Sunil N  
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Estates, CA 90274  
Phone: 310-517-1403 Fax: 310-517-  
1490  
Citizenship: US**

**SSN: \*\*\*\*\*  
County: Los Angeles  
Supervisor: Peter Tang**

**Inventor: arnold, steven don  
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Verdes, CA 90275  
Phone: 310 517-1374 Fax: 310 517-  
1490  
Citizenship: USA**

**SSN: \*\*\*\*\*  
County: LA  
Supervisor: S.M. Shahed**

**RECEIVED  
NOV 13 2001  
BY: [Signature]**

**1. Briefly describe the technical or commercial problem or need that this invention is intended to solve.  
This device is intended to reduce the high frequency turbine noise generated by a turbocharger.**

**2. Briefly describe how this invention solves the problem or meets the need.  
This device uses a combination of perforated metal sleeve surrounded by a bulk material made from metal mesh or ceramic or fiber glass. The device is located at the discharge side of the turbine and as the discharge gas flows through the turbine and this device, the aerodynamic pulsations (source of noise) generated due to the interaction between wakes from the turbine wheel blades and neighboring stationary components, are absorbed in the Pulse Absorber.**

**3. Describe how to make and use the invention. Please indicate which embodiment(s) are preferred and describe the best way known to you to practice the invention. Attach relevant documents. (If the invention is a device or process, please provide a drawing or flow chart.) (If you are unfamiliar with the contents and preparation of a patent application, please refer to the Guidelines for the Preparation of Invention Disclosures.  
First the bulk material is formed to the desired shape and size by using an appropriate forming process.  
Then the perforated sheet metal is rolled to fit inside the bulk material sleeve. The bulk material sleeve is then pushed on the perforate sheet metal. This assembly is then pressed into a recessed opening in the discharge side of the turbine housing. The location of the absorber with respect to the turbine blades is carefully selected so as to give maximum reduction in noise without causing mechanical failure of the blades. The shape of the pulse absorber could be either straight or curved to suit the installation space in the vehicle.**

**Document(s):  
H0003111\_MU1\_Absorber 2D.tif**

This document is being filed by Express Mail under 37 CFR §  
1.10 "Express Mail" Mailing Label No EE697936632US  
Date of Deposit December 24, 2001  
by [Signature] 12/24/2001  
Kathryn Costantino Date

4(a). To the best of your recollection what is the earliest date on which the invention was conceived? Who conceived the invention? Attach documents which evidence the foregoing.

Conception Date: 08/10/01

Who conceived it?: Sunil Sahay and Daniel Brown

Document(s):

4(b). Is there a non-inventor who witnessed the conception? If so, please identify him/her and attach any documents which evidence the witnessing.

Yes

Witness Name: Peter Tang

Witness Phone: 310-517-1615 Document(s):

5(a). To the best of your recollection, what is the earliest date on which the invention was reduced to practice (i.e. made)? Who reduced the invention to practice. Attach documents which evidence the foregoing. If no reduction to practice, type "n/a".

First Practice Date: n/a

Who reduced it to practice?: Document(s):

5(b). Is there a non-inventor who corroborated the reduction to practice? If so, please identify him/her, the corroborating activity (i.e., over-the-shoulder corroboration or repeating the experiment), and the date of the activity. Attach documents which evidence the foregoing.

Non-inventor  
corroborator?:

First

Corroborator

First Corroborator Phone:

Name:

First Practice

Corroboration Date:

First Practice Corroborator Activity:

n/a

Document(s) related to corroboration event:

5(c). For each example of the invention and each comparative example on which you intend to rely in the patent application, please indicate when the example was generated, who conducted the experiment and where this example is recorded (e.g., volume, page and author or laboratory notebook) and attach a copy of these records.

If no example available, type "n/a".

Example(s): n/a

Who conducted the experiment?:

Where is example recorded?: Document(s):

6(a). Did this invention arise in a program that is funded in whole or part by the U.S. Government or another company, or any entity other than Honeywell?

No

6(b). If so, please identify the program (including government contract number, if applicable) and the entity sponsoring the program and provide a copy of any agreement between the parties concerning the program.

Outside Funding Program:

Contract Number (if applicable):

Outside Funding Entity:

Document(s) related to funding agreement:

a secrecy agreement, license agreement, joint development agreement, etc.)?

No

7(b). If so, please identify the agreement and the other party and attach a copy of the agreement if one is available.

Third party agreement ID:

Third party name:

Document(s) related to any third party agreement:

8. You have a duty to disclose to the U.S. Patent and Trademark Office all relevant prior art of which you are aware. Please list all such prior art (e.g., patents, publications, brochures, Honeywell and third-party products) known to you. If a prior art search has been conducted, it must be included. Briefly indicate how this invention is different from the prior art. See 1 and 2 above.

List of prior art:

AlliedSignal Aerospace Study no. 96-253, dated 9/25/1996, by Daniel Brown on Noise Muffler for compressor.

How invention is different from the prior art:

This invention is designed to be , for a very high temperature application of 1200 degrees F and higher.

The Bulk material used in this invention, to the best of the inventor's knowledge, have not been used for high frequency, high temperature, noise reduction as an integral part of a turbocharger.

9(a). Has the product or process which is the subject of this invention disclosure been disclosed, sold or offered for sale to anyone outside of Honeywell or to the general public.

Yes

9(b). If so, when and to whom was it disclosed, sold or offered for sale? If it was disclosed, was a secrecy agreement in place? Attach documents which evidence the sale or offer for sale.

Date it was disclosed: 08/14/01

Whom disclosed to: Interntional and Ford Motor Co.

Disclosure Sales Agreement?: No

Document(s) which evidence the sale or offer for sale:

9(c). Does the business intend to disclose, sell or offer to sell the invention to anyone outside of Honeywell or to the general public in the near future? If so, to whom and when is this disclosure, sale or offer for sale planned?

Yes

For whom are future sales planned: Interntional

Date future sale is planned: 10/01/02

10(a). Does this invention relate to any other: (i) issued patents, (ii) pending patent applications, or (iii) previously submitted invention disclosures, of Honeywell?

No

10(b). If so, please identify the related matter and indicate whether this is an improvement on an earlier invention: Other patents related matter is:

Is this an improvement?:

11. Please specify the product(s) to which this invention disclosure relates.

All Turbochargers

R

Only one witness signature is required

Witness

Name:

Peter Tang

Witness

Signature:

Peter Tang

Date:

Sep. 24, 2001

Inventor

Name:

SUNIL N. SAHAY

Inventor

Signature:

S. Sahay

Date:

9/11/2001

Inventor

Name:

Inventor

Name:

DANIEL V. BROWN

Inventor

Signature:

Inventor

Signature:

Daniel V. Brown

Date:

Date:

9/24/01

Inventor

Name:

Inventor

Name:

Steven D. Howard

Inventor

Signature:

Inventor

Signature:

S. Howard

Date:

Date:

9/25/01

Inventor

Name:

Inventor

Name:

Inventor

Signature:

Inventor

Signature:

Date:

Date:

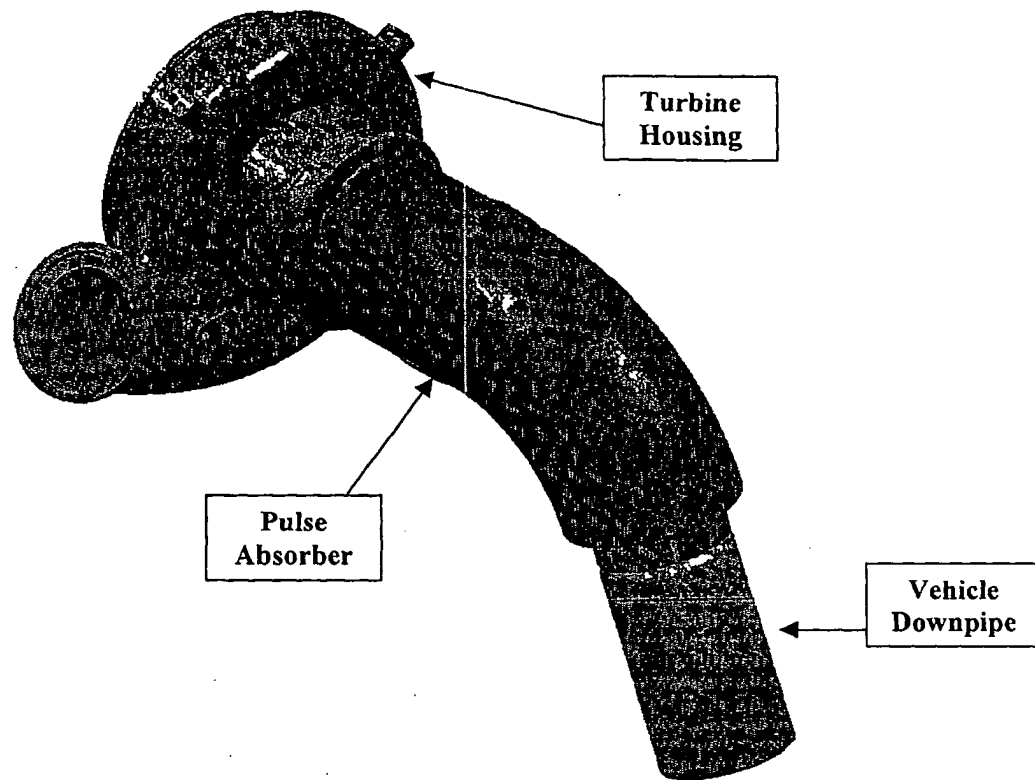
Send to:

Ephraim D. Starr

23326 Hawthorne Blvd., Suite 200  
Torrance, CA 90505

TOTAL CHARGES

Pulse Absorber for High Frequency Turbine Noise Reduction



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FOI22T" 84644E09